Tecra C50-B Detailed Product Specification[1]

Model Name: C50-B1503	Part Number: PSSG4U-003001	UPC: '022265863114

Operating System C1 2

- Windows 7 Professional (Windows 8.1 Pro license and recovery media included)

Processor[3] and Graphics[4]

- Intel® Core™ i5-4210U Processor
  - (3M Cache, up to 2.70GHz) with Intel® Turbo Boost Technology 2
- Mobile Intel® HD Graphics dynamically allocated shared graphics memory

Memory[5]

- 4GB DDR3L 1600MHz (max 16GB)
- 2 memory slots. One slot occupied. Not user replaceable.

Storage Drive[6]

- 500GB (5400 RPM) Serial ATA hard disk drive
- TOSHIBA Hard Drive Impact Sensor (3D sensor)

Fixed Optical Disk Drive[7]

- DVD SuperMulti drive supporting 11 formats
  - Maximum Read speed and compatibility: CD-ROM (24x), CD-R (24x), CD-RW (16x), DVD-ROM (8x), DVD-R (8x), DVD-R DL (6x), DVD-RW (6x), DVD+R (8x), DVD+R DL (6x), DVD+RW (8x), DVD-RAM (5x)

Display[8]

- 15.6" diagonal widescreen TFT display at 1366 x 768 native resolution (HD)
  - Native support for 720p content
  - 16:9 aspect ratio
  - LED backlit
- Intel® Wireless Display Ready[9]

Sound

- Built-in stereo speakers
- DTS Sound™

Input Devices

- Standard keyboard with 10-key(black)
- Touch pad pointing device with multi-touch control

Communications

- HD webcam and microphone
- 10/100/1000 Ethernet
- Intel® Dual-Band Wireless-AC 3160
- Bluetooth 4.0[10]

Expandability

- Memory Card Reader
  - Secure Digital, Secure Digital High Capacity, Mini SD Card, Micro SD Card, SDXC, Multi Media Card [shared slot may require adapter for use]

Ports

- Video
  - RGB
  - HDMI®
- Audio
  - Microphone input/ Headphone output (shared)
- Data
  - 2 USB 3.0[11] ports
  - 1 USB 2.0 port
  - RJ-45 LAN port
- Security
  - Slot for security lock

Physical Description

- Graphite Black with Line Pattern
- Dimensions (W x D x H):
  - 14.9" x 10.2" x 0.95"
  - 379mm x 258mm x 24.0mm
- Weight: Starting at 5.0 lbs (2.3 kg) depending upon configuration [12]

Power[13]

- 45W (19V) 100-240V/50-60Hz AC Adapter.
- 4 cell/45 Wh Lithium Ion battery pack(user replaceable)
- Battery Life Rating (measured by MobileMark™ Productivity 2012)
  - Included 4 cell battery: up to 6 hours, 48 minutes
  - Windows 8.1 Operating system only

Toshiba EasyGuard®[14]

- Protect & Fix
  - HALT Tested Design
  - LCD Cover Face and Point pressure Resistant Design
  - Hinge Design Enhancement
  - TOSHIBA PC Diagnostic Tool
  - TOSHIBA PC Health Monitor
  - TOSHIBA Shock Protection System
- Secure
  - Execute Disable Bit
  - Multiple-Level Password Utilities
  - Reinforced Security Cable Lock Slot
  - Trusted Platform Module v1.2
- Connect
  - Bluetooth Stack for Windows by Toshiba
  - Diversity Antenna
  - Voice-over-IP Ready Design
  - Wireless Communication On/Off
- Optimize
  - FN Shortcut Keys
  - TOSHIBA eco Utility™
  - TOSHIBA Power Management Extension
  - TOSHIBA Recovery Media Creator

Software C1 15(may vary depending on OS)

- Toshiba Software and Utilities
  - TOSHIBA eco Utility™
  - TOSHIBA Media Player by sMedio Truelink+
  - TOSHIBA Password Utility
  - TOSHIBA PC Health Monitor
  - TOSHIBA Recovery Disc Creator
  - TOSHIBA Service Station
  - TOSHIBA Resolution+® Upconvert Plug-in for Media Player[16]
- Third-party Software
  - Adobe Flash Player
  - Internet Explorer®
  - DTS Sound™
- Special Offers and Trial Software
  - 1 month trial for new Office 365 customers[17]
  - Norton™ Internet Security (30-day trial subscription)

1 YEAR STANDARD LIMITED WARRANTY[18]

- Includes International Limited Warranty for obtaining service when traveling outside the United States.

Environmental Specifications

- This product is RoHS[19] compatible
- ENERGY STAR® Qualified
- EPEAT Gold Rated

	Operating	Non-operating
Temperature[20]	5° to 35° C	-20° to 65° C
Thermal Gradient	15° C per hour (max)	20° C per hour
Relative Humidity (non-condensing)	20% to 80%	10% to 90%
Altitude (relative to sea level)	-60 to 3,000 meters	-60 to 10,000 meters
Shock	10G	60G

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Vibration	0.5G, 0.25G w/ODD	1.0G

Service Upgrades and Extensions
Toshiba offers many different enhanced services such as SystemGuard®, On-Site Repair, and ServiceExpress to provide additional support to your notebook PC. For a full description and complete list of programs and program terms and conditions, please visit www.support.toshiba.com.

Accessories
For additional and most updated accessories, please visit www.accessories.toshiba.com

Power
Part Number	Description
PA5177U-1ACA	Toshiba 45W Global AC Adapter
PA5212U-1BRS	Toshiba Primary Li-Ion Battery Pack

Expansion
Part Number	Description
PA5082U-1PRP	dynadock V3.0 Universal USB Docking Station
PA3927U-1PRP	dynadock U3.0 Universal USB Docking Station

Bluetooth
Part Number	Description
PA3847U-1ETB	Toshiba Bluetooth Laser Mouse, Gloss Black
PA5211U-1ETB	Toshiba Bluetooth Optical Mouse B35, Black

Input Devices
Part Number	Description
PA5154U-1ETB	Toshiba Optical Mouse U30
PA5155U-1ETB	Toshiba Wireless Optical Mouse W30

Carrying Case
Part Number	Description
PA1448U-1RS6	Toshiba 16” Envoy Roller Case
PA1450U-1EB6	Toshiba 16” Lightweight Backpack
PA1456U-1SN6	Toshiba 16” Neoprene Case
PA1463U-1SP6	Toshiba 16” Metropolitan Case
PA1563U-1CS6	Toshiba 16” Envoy 2 Carrying Case
PA1568U-1SS6	Toshiba Neoprene Sleeve, 16”

Storage
Part Number	Description
PA5182U-1M8R	Toshiba Flash Drive Duo, 8GB
PA5182U-1MAR	Toshiba Flash Drive Duo, 16GB
PA5182U-1MBR	Toshiba Flash Drive Duo, 32GB
PA5182U-1MCR	Toshiba Flash Drive Duo, 64GB
HDTC705XK3A1	Toshiba CANVIO CONNECT 500GB BLK
HDTC710XK3A1	Toshiba CANVIO CONNECT 1TB BLK
HDTC720XK3C1	Toshiba CANVIO CONNECT 2TB BLK
HDTQ112XCWF1	Toshiba WIRELESS SSD 128GB
HDWW100XKWF1	Toshiba WIRELESS ADAPTER
PFU016U-1BC	Toshiba 16GB USB 3.0 STD FLASH DR
PFU032U-1BCK	Toshiba 32GB USB 3.0 STD FLASH DR
PFU064U-1BCK	Toshiba 64GB USB 3.0 STD FLASH DR
PFW016U-1BCW	Toshiba 16GB FLASHAIR II CLASS 10 SDHC
PFW032U-1BCW	Toshiba 32GB FLASHAIR II CLASS 10 SDHC

Subject to Change
While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice. For the most up-to-date product information about your computer, or to stay current with the various computer software or hardware options, visit Toshiba’s Web site at http://www.support.toshiba.com

Return Policy
Notwithstanding anything to the contrary in any third party License Agreement or product documentation supplied with your PC, Toshiba America Information Systems, Inc. (“TAIS”) does not accept the return of component parts, or bundled software, that have been removed from the PC system. Pro-rata refunds on individual PC components or bundled software, including the operating system, will not be granted. If you wish to return a complete PC system, contact the TAIS dealer where you purchased the product, and comply with the dealer’s standard return policies and procedures.

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TAIS PC Support website: http://support.toshiba.com

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[C1] ***64-bit computing:***
64-bit computing requires that the following hardware and software requirements are met:
- 64-bit Operating System
- 64-bit CPU, Chipset and BIOS (Basic Input/Output System)
- 64-bit Device drivers
- 64-bit applications

Certain device drivers and/or applications may not be compatible with a 64-bit CPU and therefore may not function properly. See "Detailed Specs" for more information.

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[1] **Product Series Legal Footnote**. The product specifications and configuration information are designed for a product Series. Your particular model may not have all the features and specifications listed or illustrated. For more detailed information about the features and specifications on your particular model, please visit Toshiba's Web site at pcsupport.toshiba.com.

Product Offering Legal Footnote. Toshiba America Information Systems, Inc. reserves the right to modify or withdraw this offer at anytime without notice

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[2] **Operating System**.

Also see ***64-Bit Computing*** Legal Footnote, if applicable.

Certain Microsoft® software product(s) included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software product(s) or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

Offers. Offer terms, duration and product availability all subject to change without notice

[3] **Processor (Central Processing Unit)**. Also see ***64-Bit Computing*** Legal Footnote, if applicable.

CPU performance in your computer product may vary from specifications under the following conditions:

1. use of certain external peripheral products
2. use of battery power instead of AC power
3. use of certain multimedia, computer generated graphics or video applications
4. use of standard telephone lines or low speed network connections
5. use of complex modeling software, such as high end computer aided design applications
6. use of several applications or functionalities simultaneously
7. use of computer in areas with low air pressure (high altitude >1,000 meters or >3,280 feet above sea level)
8. use of computer at temperatures outside the range of 5°C to 30°C (41°F to 86° F) or >25°C (77°F) at high altitude (all temperature references are approximate and may vary depending on the specific computer model – please visit the Toshiba website at www.pcsupport.toshiba.com for details).

CPU performance may also vary from specifications due to design configuration.

Under some conditions, your computer product may automatically shut-down. This is a normal protective feature designed to reduce the risk of lost data or damage to the product when used outside recommended conditions. To avoid risk of lost data, always make back-up copies of data by periodically storing it on an external storage medium. Use your computer product only under recommended conditions. Read additional restrictions under "Environmental Conditions" in your product "Detailed Specs." Contact Toshiba Technical Service and Support for more information.

[4] **Graphics (Graphics Processing Unit)**. GPU performance may vary depending on product model, design configuration, applications, power management settings and features utilized. GPU performance is only optimized when operating in AC power mode and may decrease considerably when operating in battery power mode.

Total Available Graphics Memory is the total of, as applicable, Dedicated Video Memory, System Video Memory and Shared System Memory. Shared System Memory will vary depending on system memory size and other factors.

[5] **Memory (Main System)**. Part of the main system memory may be used by the graphics system for graphics performance and therefore reduce the amount of main system memory available for other computing activities. The amount of main system memory allocated to support graphics may vary depending on the graphics system, applications utilized, system memory size and other factors. Computers configured with a 32-bit operating system can address up to 3GB of system memory. Only computers configured with a 64-bit operating system can address 4 GB or more of system memory.

[6] **Storage Drive**
Computer (Internal) HDD Capacity. One Gigabyte (GB) means 10^9 = 1,000,000,000 bytes using powers of 10. The computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = 2^{30} = 1,073,741,824 bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

Solid State Drive (SSD) Capacity.
Computer (Internal) SSD Capacity. One Gigabyte (GB) means 10^9 = 1,000,000,000 bytes using powers of 10. The computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = 2^{30} = 1,073,741,824 bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

[7] **Optical Drive**. Due to manufacturing and quality variations in third party optical media (e.g., CD or DVD) or optical media players/recorders, in certain cases, your Toshiba optical drive may not record on certain optical media that bear the applicable logo, or playback optical media recorded by other PCs or optical media recorders. Additionally, certain optical media recorded on your optical drive may not playback or operate properly on other PCs or optical media players. These problems are not due to any defect in your Toshiba PC or optical drive. Please refer to your PC's product specification for listing of specific format compatibilities.

Recording or viewing of certain optical media may be limited or prevented in accordance with applicable copy protection standards.

[8] **Display**. Small bright dots may appear on your screen display when you turn on your PC. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology. Over a period of time, and depending on the usage of the computer, the brightness of the screen will deteriorate. This is also an intrinsic characteristic of the screen technology. When the computer is operated on battery power, the screen with dim and you may not be able to increase the brightness of the screen while on battery power.

[9] **Intel® Wireless Display.** Copy protection technology, if any, associated with the content may prevent or limit viewing of content.

[10] **Wireless** May require purchase of additional software, external hardware, or services. Transmission speeds may vary. Certain optional features within the wireless-n specifications (if available on your system) may not be supported..

[11] **USB 3.0.** 5Gbps is the maximum theoretical interface transfer rate per the specifications of the Universal Serial Bus 3.0. Actual transfer rate will vary depending on your system configuration and other factors.

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[12] **Weight**. Weight may vary depending on product configuration, vendor components, manufacturing variability and options selected.

[13] **Battery Life Rating**.
Measured by MobileMark® 2007 for models preinstalled with Microsoft® Windows 7.
- Benchmark rules for Mobile Mark™ 2007: Wireless connectivity = Off, Screen brightness = 60nits, Predefined workloads.

Measured by MobileMark® 2012 for models preinstalled with Microsoft® Windows 8.
- Benchmark rules for Mobile Mark™ 2012: Wireless connectivity = On, Screen brightness = 150nits, Predefined updated workloads.

Details of MobileMark® 2007 and MobileMark® 2012 testing protocols are available at **www.bapco.com** MobileMark is a trademark of the Business Applications Performance Corporation.

Rating is for comparison purposes only, and does not indicate the battery life that will be obtained by any individual user. Actual battery life may vary considerably from specifications depending on product model, configuration, applications, power management settings and features utilized, as well as the natural performance variations produced by the design of individual components. The battery life rating is only achieved on the select models and configurations tested by Toshiba under the specific test settings at the time of publication and is not an estimate of a system's battery life under any conditions other than the specific test settings.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries.

[14] **EasyGuard**. Toshiba EasyGuard™ technology comprises a number of features some of which may or may not be available on a particular Toshiba notebook depending on the model selected. See www.easyguard.toshiba.com for detailed information.

[15] **Software**. Also see 64-Bit Computing Legal Footnote, if applicable.

Certain Microsoft® software product(s) included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software product(s) or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

[16] **Upconverter/UpconversionTechnology (Resolution+® Technology).** Viewing enhancements may vary depending upon content quality and display device capability/functionality/settings. Depending on the quality of the content, some video noise may be visible.

[17] **Microsoft® Officetrial** Buy Microsoft® Office to use full-featured Office software on this PC.

Microsoft® Software (if included in your PC; e.g., Microsoft Home and Student 2013, Microsoft Office Home and Business 2013, Microsoft Office Professional 2013)

The version of Microsoft® Office included in this computer is only available in and can only be activated within the region in which you purchased it.
Certain Microsoft® software products included with this computer may use technological measures for copy protection. In such case, you will not be able to use the Product if you do not activate it with Microsoft. Activation may be completed by Internet or telephone (toll charges may apply). Product Activation procedures and Microsoft's privacy policy will be detailed during initial launch of the Product, or upon certain reinstallations of the software products or reconfiguration of the computer.

[18] **Warranty:** The terms and conditions of Toshiba's standard limited warranty are available at www.warranty.toshiba.com.

[19] **RoHS.** This notebook is compatible with European Union Directive 2011/65/EU, Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS), which restricts use of lead, cadmium, mercury, hexavalent chromium, PBB, and PBDE. Toshiba requires its notebook component suppliers to meet RoHS requirements and verifies its suppliers' commitment to meeting RoHS requirements by conducting component sampling inspections during the product design approval process.

[20] **Temperature (Environmental) Conditions**. All temperature references are approximate and the performance of your computer may vary from specifications even when operating within the recommended temperature range.

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